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TECHNOLOGY AMENDMENT UNDER 37 C.F.R. §1.116
EXAMINING GROUP 2827

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Steven R. Eskildsen et al.

Application No. 09/103,110

Filed: June 23, 1998

For: IC PACKAGE WITH EDGE CONNECT
CONTACTS

Examiner: Dinh, Tuan T.

Art Unit: 2827

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October 8, 2002
(Date signed)

AMENDMENT AFTER FINAL ACTION UNDER 37 C.F.R. §1.116

Sir:

In response to the Office Action dated August 7, 2002, Applicant respectfully requests that the Examiner consider the following remarks.

IN THE CLAIMS

Presented below are the amended claims in a clean-unmarked format.

15. An apparatus for use in a data processing device, comprising:
 - an IC package having multiple leads extending from the IC package;
 - a first receptacle receiving the IC package, the first receptacle comprising a first opening such that the first opening receives the multiple leads and provides an opening for connection to the multiple leads, a second opening such that the IC package is inserted into the first receptacle through the second opening, and at least one stop positioned at the second opening such that the stop holds the IC package securely within the first receptacle when the IC package is fully inserted into the first receptacle;
 - a second receptacle receiving the first receptacle, the second receptacle comprising multiple electrical contacts to contact the multiple leads of the IC package through the first opening of the first receptacle.
16. The apparatus of claim 15, wherein the first opening is a front opening.
17. The apparatus of claim 15, wherein the second opening is a back opening such that the IC package is inserted into the first receptacle from a back of the first receptacle.
18. The apparatus of claim 15, wherein the second opening is a bottom opening such that the IC package is inserted into the first receptacle from a bottom of the first receptacle using a rotating movement.
19. The apparatus of claim 15, wherein the first receptacle provides a physical and electrostatic discharge protection for the IC package.
20. A method for use in a data processing device, comprising:

providing an IC package, the IC package having multiple leads extending from the IC package;

providing a first receptacle, the first receptacle having a first opening, a second opening, and at least one stop positioned at the second opening;

inserting the IC package into the first receptacle through the second opening, such that when the IC package is fully inserted into the first receptacle, the first opening receives the multiple leads and provides an opening for connection to the multiple leads, and the stop holds the IC package securely within the first receptacle;

providing a second receptacle, the second receptacle having multiple electrical contacts;

inserting the first receptacle into the second receptacle, such that when the first receptacle is inserted into the second receptacle, the multiple electrical contacts contact the multiple leads through the first opening of the first receptacle.

21. The method of claim 20, wherein the first opening is a front opening.
22. The method of claim 20, wherein the second opening is a back opening such that the IC package is inserted into the first receptacle from a back of the first receptacle.
23. The method of claim 20, wherein the second opening is a bottom opening such that the IC package is inserted into the first receptacle from a bottom of the first receptacle using a rotating movement.
24. The method of claim 20, wherein the first receptacle provides a physical and electrostatic discharge protection for the IC package.

REMARKS

In the Office Action dated June 23, 2002, claims 15-24 were pending. Claims 15-24 were rejected under the judicial created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,250,934. Claims 15-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krehbiel (U.S. Patent No. 5,026,297) in view of Ringer et al. (U.S. Patent No. 5,408,386).

In this response, no claim has been cancelled and no claim has been amended, thus claims 15-24 remain pending. Reconsideration of the present application is respectfully requested.

Double Patenting

Claims 15-24 were rejected under the judicial created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,250,934. As this is a provisional rejection, Applicant will wait until the Examiner indicates the conflicting claims are allowable over the art of record before addressing the rejection.

Rejections Under 35 U.S.C. §103(a)

Claims 15-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krehbiel in view of Ringer.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d

981, 180 USPQ 580 (CCPA 1974). (Manual of Patent Examining Procedure (MPEP) ¶ 2143.03).

Applicant submits that claims 15-24 of the present application include limitations not disclosed or taught by Krehbiel or Ringer. As a result, claims 15-24 are patentable over Krehbiel in view of Ringer.

Specifically, independent claim 15 recites as follows:

15. An apparatus for use in a data processing device, comprising:
an IC package having multiple leads extending from the IC package;
a first receptacle receiving the IC package, the first receptacle comprising a first opening such that the first opening receives the multiple leads and provides an opening for connection to the multiple leads, a second opening such that the IC package is inserted into the first receptacle through the second opening, and at least one stop positioned at the second opening such that the stop holds the IC package securely within the first receptacle when the IC package is fully inserted into the first receptacle;
a second receptacle receiving the first receptacle, the second receptacle comprising multiple electrical contacts to contact the multiple leads of the IC package through the first opening of the first receptacle.
(emphasis added)

Applicant submits that independent claim 15 includes a limitation of “a second opening such that the IC package is inserted into the first receptacle through the second opening”, which is not taught or suggested by either Krehbiel or Ringer, individually or in combination. Examiner stated that Krehbiel discloses:

“a second opening which is a back or bottom opening (86, column 7, lines 4-5) such that the IC package (12) is inserted into the first receptacle (14) through the second opening (column 7, lines 5-6)”

Applicant respectfully disagrees. Applicant submits that IC package 12 of Krehbiel is not inserted through second opening 86. Rather, IC package 12 is urged into housing 14 from a front opening (see, Fig. 1), such that rear face 42 of package 12 is in an opposed facing relationship to rear wall 84 (which includes second opening 86) of the housing. Package 12 is

then rotated toward rear wall 84 of housing 14, see, for example, Fig. 1, col. 7, line 45 to col. 8, line 14. Thus, package 12 is clearly inserted and rotated through the front opening, instead of through the alleged second opening 86 of rear wall 84.

In addition, the alleged second opening 86 is not used for inserting package 12. Rather opening 86 of rear wall 84 is an access opening to enable convenient access to package 12 (for example, using a finger of a user) for urging the package 12 into an angular alignment corresponding to an unmated condition of SIP 18 when package 12 is inserted through the front opening (see, col. 7, lines 1 to 7), instead of inserting package 12 through the alleged second opening 86 therein. This interpretation is further supported by the fact that SIP 18 can readily be removed through rotating the package 12 away from the rear wall 84 (and the opening 86) of housing 14. However, in some instances, it may be necessary to exert a slight additional force (for example, through a finger of a user) on the package 12 which is facilitated by the access opening 86 in rear wall 84 (see, Fig. 1, col. 8, lines 15 to 26). As a result, Applicant submits that the opening 86 is not used, as an opening through which package 12 is inserted into housing 14. The primary purpose of opening 86 is to apply a force to package 12 to help inserting or removing package 12 into or from housing 14 through the front opening, rather than inserting package 12 through the alleged second opening 86. It would not be obvious to one with ordinary skill in the art to modify the teaching of Krehbiel to allow an IC package to be inserted therethrough. In fact, any attempts to modify Krehbiel to achieve the present invention as claimed would clearly destroy the purposes of Krehbiel.

Furthermore, as indicated in Figs. 7 and 9, the alleged second opening 86 is disposed on rear wall 84 and is significantly smaller than rear wall 84, while package 12 has a size substantially closed to the size of rear wall 84. As a result, package 12 cannot be inserted through opening 86. One with ordinary skill in the art would not, based on the teaching of

Krehbiel, attempt to insert a package similar to package 12 to housing 14 through opening 86.

Similarly, Ringer also fails to disclose or teach a second opening through which an IC package is inserted as set forth in the claims. Therefore, Applicant respectfully submits that independent claim 1 is patentable over Krehbiel in view of Ringer.

Independent claim 20 recites as follows:

20. A method for use in a data processing device, comprising:
providing an IC package, the IC package having multiple leads extending from the IC package;
providing a first receptacle, the first receptacle having a first opening, a second opening, and at least one stop positioned at the second opening;
inserting the IC package into the first receptacle through the second opening, such that when the IC package is fully inserted into the first receptacle, the first opening receives the multiple leads and provides an opening for connection to the multiple leads, and the stop holds the IC package securely within the first receptacle;
providing a second receptacle, the second receptacle having multiple electrical contacts;
inserting the first receptacle into the second receptacle, such that when the first receptacle is inserted into the second receptacle, the multiple electrical contacts contact the multiple leads through the first opening of the first receptacle. (emphasis added)

Similarly, independent claim 20 includes a limitation of “inserting the IC package into the first receptacle through the second opening, such that when the IC package is fully inserted into the first receptacle”, which is absent from either Krehbiel or Ringer, individually or in combination. Therefore, for the reasons similar to those discussed above, Applicant submits that independent claim 20 is patentable over Krehbiel in view of Ringer.

The rest of the claims depend from one of the above independent claims, and thus include all of the distinct features of their respective independent claim. Therefore, for the reasons similar to those discussed above, these dependent claims are patentable over Krehbiel in view of Ringer.

In view of foregoing arguments, Applicant respectfully submits that the rejections have been overcome and withdrawal of the rejections is respectfully requested.

CONCLUSION

In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 10/8, 2002



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